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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/128,289	08/03/1998	WILLIAM O. BURKE III	2041	2475

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EXAMINER

JUSKA, CHERYL ANN

ART UNIT PAPER NUMBER

1771

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/128,289	BURKE ET AL.	
	Examiner	Art Unit	
	Cheryl Juska	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 12, 2003, has been entered.

Response to Amendment

2. The amendment filed on August 12, 2003 has been entered. Claims 18-25 have been cancelled and replaced with new claims 26-33.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 26, 28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 702 929 issued to Kerr (EP Kerr) in view of US Patent 4,820,566 issued to Heine et al. and in further view of US 5,305,565 issued to Nagahama et al.

EP Kerr discloses washable floor mats with ozone resistance comprised of (a) woven or nonwoven carrier material, (b) a pile material of yarns tufted through said carrier material, wherein said yarns may be cotton, nylon, polyester, etc., and (c) a vulcanized rubber backing sheet which includes a blow agent (page 3, lines 15-23). EP Kerr teaches the same foam rubber backing material comprising acrylonitrile-butadiene rubber (NBR) or styrene-butadiene rubber (SBR) mixed with EPDM and a blowing agent as that disclosed by the Applicant (page 3, line 51-page 4, line 33). Additionally, Kerr's teaching of frequent laundering of floor mats (page 2, lines 21-24) is noted as support for the patented floor mat possession of certain properties, such as flexibility. Furthermore, Kerr states, "At the temperature and pressure occurring in the press mold 32, the rubber backing sheet 20 undergoes vulcanization and is integrated to the carrier layer 16 of the mat to form a substantially unitary structure." (page 4, lines 5-6.)

EP Kerr merely teaches that the nonwoven or woven carrier layer is "of [a] suitable material" (page 3, line 40). Without a specific teaching as to what materials are "suitable," one of ordinary skill would look to the prior art. For example, Heine teaches a tufted carpet mat having a woven or nonwoven primary backing (i.e., carrier layer) of polyester or polypropylene (col. 5, lines 32-39). Said primary backing is taught to having a basis weight of 135 g/m^2 , or about 4 oz/yd^2 (col. 5, lines 39-40). Thus, it would have been obvious to one of ordinary skill in the art to use a known polyester nonwoven material for the carrier layer, as is taught by Heine, wherein one of ordinary skill is motivated by the teachings of EP Kerr to choose a "suitable" material for said nonwoven carrier layer and by the teaching by Heine that a polyester nonwoven having a basis weight of 4 oz/yd^2 is a "suitable" carrier layer material.

EP Kerr and Heine lack a teaching to the claimed (i) 'suitable flexibility' of the mat,

Art Unit: 1771

(ii) 'heat shrinkage factors' of the rubber backing, (iii) 'modulus strength' of the rubber backing, and (iv) 'water absorption' of the rubber backing. Although the cited prior art does not explicitly teach these claimed properties, it is reasonable to presume that said properties are met by the combination of prior art. Support for said presumption is found in EP Kerr's use of like materials for the pile and rubber backing materials and Heine's use of like materials for the substrate, which are equivalent to those disclosed by the Applicant. Specifically, as noted above, EP Kerr teaches an equivalent foam rubber backing. (It is noted that this point has not been disputed in previous prosecution.) As such, said backing must inherently possess the claimed flexibility, heat shrinkage, modulus, and water absorption.

Additionally, it is argued that it would have been obvious to one of ordinary skill in the art to choose a nonwoven carrier layer substrate with the claimed heat shrinkage factor. Motivation to do so would be to prevent differential shrinkage between the carrier layer and the rubber backing. Nagahama teaches a floor mat which is designed to prevent waving. Nagahama discusses the problem of differential shrinkage (or linear expansion) between a fiber substrate (i.e., carrier layer) and a rubber backing during manufacture of a floor mat and during repeated washing and drying of said mat (col. 1, lines 10-34). Said differential shrinkage causes unwanted internal stress, waving, and curling of said mat (col. 2, lines 27-30). Thus, it is asserted that differential shrinkage in floor mats is a well-established problem in the art.

As such, it would have been obvious to one skilled in the art to choose a nonwoven substrate having a shrinkage factor equivalent to the shrinkage factor of the rubber backing, which, in this case, is a range of 2.0 to 2.5%, in order to prevent differential shrinkage between the rubber backing and the nonwoven carrier layer upon heating during curing of said rubber

Art Unit: 1771

backing and/or during laundering of the floor mat. Therefore, claims 26, 28, and 30-32 are rejected as being obvious over the cited prior art of EP Kerr, Heine, and Nagahama.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over the cited EP Kerr, Heine, and Nagahama patents, as applied to claim 26 above, and in further view of WO 96/38298 issued to Burke et al.

EP Kerr, Heine, and Nagahama do not teach a reinforcement strip. However, said reinforcement strips are well known in the art of floor mats. For example, Burke discloses reinforcement strips for a rubber backing of a floor mat (abstract). Hence, it would have been obvious to one of ordinary skill at the time of the invention to add reinforcement strips to the floor mat according to EP Kerr, Heine, and Nagahama. Motivation to do so would be to improve the tear resistance of said floor mat. With regard to the claimed heat shrinkage factor, it is asserted that the reinforcement strips would inherently possess said factor, in that said strips are made from the same rubber composition as the backing material. Therefore, claim 27 is rejected as being obvious over the cited art.

6. Claims 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited EP Kerr, Heine, and Nagahama patents as applied to claims 26 and 31 above, and in further view of US Patent 4,722,954 issued to Hallworth.

Although EP Kerr, Heine, and Nagahama do not explicitly teach the presence of silica in the foam rubber backing, the use of silica fillers is well known in the art of carpeting. For example, Hallworth teaches the use of silica in a foamed rubber backing useful as a carpet backing (abstract and col. 1, lines 9-27). Hence, it would have been obvious to employ a filler, such as silica, as is taught by Hallworth. Motivation to do so would be to decrease the cost and

Art Unit: 1771

weight of the rubber backing. Motivation to choose silica as a particular filler would be the low cost of silica (sand). Hence, claims 29 and 33 are rejected as being obvious over the cited art.

Response to Arguments

7. Applicant's arguments filed on August 12, 2003, have been fully considered but they are not persuasive.

8. The newly submitted claims are analogous to cancelled claims 18-25, with the exception that independent claims 26 and 31 limit the nonwoven to "consist essentially of" polyester and limit the rubber backing to being vulcanized and integrated to the nonwoven substrate simultaneously. However, these new limitations are insufficient to overcome the prior art rejections. Specifically, Heine explicitly teaches the nonwoven substrate may be made of polyester or polypropylene fibers. Hence, Heine meets the present limitation of a nonwoven substrate which "consists essentially of" polyester. Additionally, as noted above, Kerr teaches the rubber backing is vulcanized and integrated with the carrier substrate simultaneously. Therefore, the new claim limitations are insufficient to overcome the art of record.

9. Applicant traverses the above rejection by arguing that the polypropylene nonwoven carrier of Heine would not be suited to vulcanization as is presently claimed (Amendment, page 6-8). This entire argument is unpersuasive because Heine is not limited to polypropylene nonwovens; Heine also teaches the claimed polyester nonwoven carrier (col. 5, lines 32-39). Also, applicant's assertion that Heine's polypropylene backings are "the only ones specifically disclosed exhibiting the same weight range as now claimed" (Amendment, bottom of page 6) is unfounded since Heine explicitly teaches the preferred primary backing weight is 135 g/m², or

Art Unit: 1771


about 4 oz/yd² (col. 5, lines 39-40). Thus, applicant's arguments are not convincing and the prior art rejection stands.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Cheryl Juska whose telephone number is 703-305-4472. The Examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


CHERYL A. JUSKA
PRIMARY EXAMINER